

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/002578

International filing date (day/month/year)
12.03.2004

Priority date (day/month/year)
21.03.2003

International Patent Classification (IPC) or both national classification and IPC
C03B19/12

Applicant
NOVARA TECHNOLOGY S.R.L.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**International application No.
PCT/EP2004/002578

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/002578

Box No. II Priority

1. ☒ The following document has not been furnished:

- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3
	No: Claims	1, 2, 4
Inventive step (IS)	Yes: Claims	
	No: Claims	3
Industrial applicability (IA)	Yes: Claims	1-4
	No: Claims	

2. Citations and explanations

see separate sheet

JC20 Rec'd PCT/PTO 19 SEP 2009

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/EP2004/002578

Re Item V.

- 1) The following documents are referred to in this communication:

D1: WO 00/53536 A

D2: EP-A-1 172 339

D3: PATENT ABSTRACTS OF JAPAN of JP 2002 293548 A

D3a: JP 2002 293548 A

D4: PATENT ABSTRACTS OF JAPAN of JP 61 163131 A

- 2) lack of disclosure

The application does not fulfill the requirements of Art. 5 PCT as the disclosure is not sufficient to enable the skilled person to put the invention as claimed into practice (see PCT Guidelines, II, 4.02). In particular, it is known from the prior art that during the drying step of a sol-gel process, cracks are likely to occur, especially when making complex shapes as shown on figure 1 of the application. Special care concerning raw materials and additives (e.g. particle size), temperature, duration of drying step etc must be taken in order to achieve a crack free body. None of these are explained in the description, thereby preventing a skilled person to carry out the invention.

- 3) novelty

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 2, 4 is not new in the sense of Article 33(2) PCT.

The document **D1** discloses (the references in parentheses applying to this document): a sol-gel process for making a dense glass body, in particular a preform. The process (see example 1) preparing a sol using TEOS as raw material, hydrolysing the sol, adding colloidal silica, pouring in a mold containing an insert, gelling, removing from the mold, drying the gel and finally densifying at 800-1375°C.

- 4) inventive step

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 3 does not involve an inventive step in the sense of Article 33(3) PCT.

The document **D1** is regarded as being the closest prior art to the subject-matter of claim 3.

The subject-matter of claim 3 differs from this known process in that the sections of the shapes obtained are different.

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The problem to be solved by the present invention may therefore be regarded as how to obtain shapes having a section as in figure 1.

The solution proposed in claim 3 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reason: preforms having sections as in claim 3 are known from the prior art, see for example D2, D3, D3a or D4. It is therefore obvious for the skilled person trying to make shapes as in figure 1 to combine D1 and one of D2-D4 to arrive at the solution of claim 4.